

What is claimed is:

1. An apparatus for correcting CRT focusing in an image processing system having a triple tube type optical system, the apparatus comprising:

a memory that stores focusing correction data of R, G, and B cathode ray tubes for a position of a screen;

a controller that reads and outputs the focusing correction data of the R, G, and B cathode ray tubes from the memory for the position of the screen based on horizontal and vertical synchronization signals; and

an R/G/B focusing correction signal generator that calculates the focusing correction data of the R, G, and B cathode ray tubes read from the memory and generates R, G, and B analog focusing correction signals that will be applied to R, G, and B coils.

2. The apparatus of claim 1, wherein the focusing correction data stored in the memory is focusing correction seed data that is determined in a predetermined number of seed points on the screen.

3. The apparatus of claim 1, wherein the focusing correction data comprises focusing correction data that is synchronized with the horizontal synchronization signal and focusing correction data that is synchronized with the vertical synchronization signal.

4. The apparatus of claim 1, wherein the R/G/B focusing correction signal generator comprises:

an R/G/B focusing calculator that calculates the focusing correction seed data of the R, G, and B cathode ray tubes read from the memory according to a predetermined interpolation calculation equation, mixes the focusing correction data synchronized with the horizontal synchronization signal and the focusing correction data synchronized with the vertical synchronization signal at every position of the screen, and obtains the focusing correction data of the R, G, and B cathode ray tubes;

a digital-to-analog converter that converts the focusing correction data of the R, G, and B cathode ray tubes output from the R/G/B focusing calculator to an analog signal; and

an amplifier that amplifies the converted analog focusing correction signal to a voltage that will be applied to R, G, and B focusing coils.

5. The apparatus of claim 4, wherein the R/G/B focusing calculator comprises:

R-, G-, and B-cathode ray tube interpolation calculators that interpolation-calculate the horizontally synchronized focusing correction seed data and the vertically synchronized focusing correction seed data of the R, G, and B cathode ray tubes read from the memory;

R, G, and B filters that filter noise from the interpolation-calculated focusing correction seed data; and

R, G, and B mixers that mix and output the horizontally synchronized focusing correction data and the vertically synchronized focusing correction data of the R, G, and B cathode ray tubes output from the R, G, and B filters, respectively.

6. The apparatus of claim 1, wherein the R/G/B focusing correction signal generator comprises:

an R/G/B focusing calculator that calculates the horizontally synchronized focusing correction data and the vertically synchronized focusing correction data of the R, G, and B cathode ray tubes read from the memory and obtains focusing correction data of the R, G, and B cathode ray tubes;

a digital-to-analog converter that converts the focusing correction data of the R, G, and B cathode ray tubes output from the R/G/B focusing calculator to an analog signal; and

an amplifier that amplifies the converted analog focusing correction signal to a voltage that will be applied to R, G, and B focusing coils.

7. The apparatus of claim 6, wherein the R/G/B focusing calculator comprises:

R, G, and B filters that filter noise from the focusing correction data synchronized with the horizontal synchronization signal and the focusing correction data synchronized with the vertical synchronization signal that is read from the memory; and

R, G, and B mixers that mix and output the horizontally synchronized focusing correction data and the vertically synchronized focusing correction data of the R, G, and B cathode ray tubes output from the R, G, and B filters, respectively.

8. A method of correcting CRT focusing in an image processing system having a triple tube type optical system, the method comprising:

(a) determining focusing correction data of R, G, and B cathode ray tubes for a position of a screen and storing the focusing correction data in a memory;

(b) reading the focusing correction data of the R, G, and B cathode ray tubes from the memory for the position of the screen based on horizontal and vertical synchronization signals; and

(c) generating a parabola focusing correction signal that will be applied to focusing coils of the R, G, and B cathode ray tubes by applying the read focusing correction data of the R, G, and B cathode ray tubes to a predetermined calculation equation.

9. The method of claim 8, wherein the focusing correction data stored in the memory is focusing correction seed data that is determined in a predetermined number of seed points on the screen.

10. The method of claim 8, wherein the focusing correction data comprises focusing correction data that is synchronized with the horizontal

synchronization signal and focusing correction data that is synchronized with the vertical synchronization signal.

11. The method of claim 8, wherein in step (c), the focusing correction data of the R, G, and B cathode ray tubes synchronized with the horizontal synchronization signal and the focusing correction data of the R, G, and B cathode ray tubes synchronized with the vertical synchronization signal are mixed, and then a parabola focusing correction signal that will be applied to the focusing coils of the R, G, and B cathode ray tubes is generated based on the mixed focusing correction data.

12. The method of claim 8, wherein in step (c), the focusing correction seed data of the R, G, and B cathode ray tubes synchronized with the horizontal synchronization signal and the focusing correction seed data of the R, G, and B cathode ray tubes synchronized with the vertical synchronization signal are interpolation-calculated, the interpolation-calculated focusing correction data synchronized with the horizontal synchronization signal and the interpolation-calculated focusing correction data synchronized with the vertical synchronization signal are mixed, and the parabola focusing correction signal that will be applied to the focusing coils of the R, G, and B cathode ray tubes is based on the mixed focusing correction data.